Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for measuring tissue edema, ~~characterised by~~ in which method

an electromagnetic probe is placed on the skin during the measurement, and ~~the~~ a capacitance of the probe is proportional to ~~the~~ a dielectric constant of the skin and ~~the~~ subcutaneous fat tissue, which is further proportional to ~~the~~ a water content of the skin, ~~and, that~~

a distance between two electrodes of the probe being large enough in order for the electronic field to penetrate up to the subcutaneous fat tissue, and the said distance is about 2-10 mm,

the edema is scored by measuring the capacitance of the electromagnetic probe~~, so called open-ended coaxial cable,~~ at a high frequency, approximately 20-500 MHz.

2. (Currently amended) A method according to claim 1, ~~characterized~~ in which ~~that~~

the measurement is made manually and takes only a few seconds.

3. (Currently amended) A method according to claim 1, ~~characterized~~ in which ~~that~~

for the measurement the probe is secured on the skin by an attachment, such as strap-like attachment, for a long time, for instance hours or days, in which case the edema can be monitored continuously.

4. (Currently amended) A method according to claim 1, ~~characterized~~ in which ~~that~~

~~the~~ a device comprising the electromagnetic probe operates only on a single precisely set frequency.

5. (Currently amended) A method according to claim 1, ~~characterized~~ in which ~~that~~

the edema of ~~the~~ uppermost layers of the skin is measured using a frequency of approximately 20-50 MHz, in which case ~~the~~ an electric field is concentrated in the uppermost layers of the skin.

6. (Currently amended) A method according to claim 1, ~~characterized~~ in which ~~that~~

the edema of deep skin layers and the underlying subcutaneous fat is measured using a frequency of approximately 50-500 MHz, in which case ~~the~~ an electric field penetrates deeply into the skin and the underlying subcutaneous fat.

7. (Currently amended) A device for measuring tissue edema, which device includes

an electromagnetic probe in order to be placed on the skin during the measurement, wherein ~~the~~ a capacitance of the

probe is proportional to ~~the~~ a dielectric constant of the skin and ~~the~~ subcutaneous fat tissue, which is further proportional to ~~the~~ a water content of the skin, ~~characterised in that the device includes~~

a high frequency unit for measuring the capacitance of the electromagnetic probe at a high frequency, approximately 20-500 MHz,

a unit for calculating measured values and the tissue edema, and ~~that~~

~~the~~ a distance between two electrodes of the probe being large enough in order for the ~~electric~~ electronic field to penetrate up to the subcutaneous fat tissue, and the said distance is about 2-10 mm.

8. (Currently amended) A device according to ~~the~~ claim 7, ~~characterized~~ in which ~~that~~

the device is arranged to measure only on a single precisely set frequency.

9. (Currently amended) A device according to ~~the~~ claim 7, ~~characterized~~ in which ~~that~~

the high frequency unit is arranged to measure the capacitance of the electromagnetic probe at ~~the~~ a range of approximately 20-50 MHz.

10. (Currently amended) A device according to ~~the~~ claim 7, ~~characterized~~ in which ~~that~~

the high frequency unit is arranged to measure the capacitance of the electromagnetic probe at ~~the~~ a range of approximately 50-500 MHz.

11. (Currently amended) A method for measuring tissue edema comprising:

placing an ~~coaxial electrode~~ electromagnetic probe on the skin, wherein a distance between two electrodes of the probe is about 2-10 mm;

generating a first signal from an oscillator, wherein ~~the~~ a frequency of the first signal is about 20 to about 500 MHz;

transmitting a first portion of the first signal to the probe and through the skin and subcutaneous fat tissue;

receiving a reflected signal from the skin and subcutaneous fat tissue through the probe;

leading the reflected signal to a first input of a phase detector;

transmitting a second portion of the first signal to a second input of the phase detector;

operating the phase detector in a saturated state, wherein signal amplitudes from the reflected signal and the second portion of the first signal form the saturated state;

measuring a phase difference between the reflected signal and the second portion of the signal;

calculating a dielectric constant from the phase difference; and

calculating a water content of the skin based on the dielectric constant.